

## DESCRIPTION

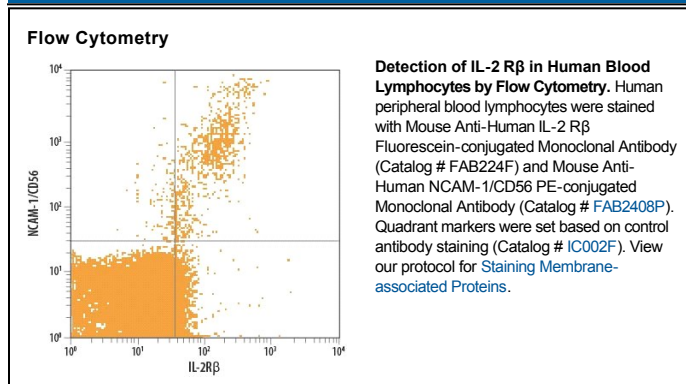
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human IL-2 R $\beta$ in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-2 R $\alpha$ , rh $\gamma_c$ , rhIL-4 R, or rhIL-6 R is observed.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 27302  |
| <b>Purification</b>       | Protein A or G purified from ascites   |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-2 R $\beta$ Ala27-Asp239<br>Accession # NP_000869   |
| <b>Conjugate</b>          | Fluorescein<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm (FITC)   |
| <b>Formulation</b>        | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the [Technical Information](#) section on our website.

|                       | Recommended Concentration        | Sample    |
|-----------------------|----------------------------------|-----------|
| <b>Flow Cytometry</b> | 10 $\mu$ L/10 <sup>6</sup> cells | See Below |

## DATA



## PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                    |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

## BACKGROUND

Functional IL-2 receptors can exist in two affinity states on cell surfaces, the high affinity complex consisting of heterotrimers of the  $\alpha$ ,  $\beta$ , and  $\gamma$  chains and the intermediate affinity complex comprising heterodimers of the  $\beta$  and  $\gamma$  chains. Individual  $\beta$  chains and  $\alpha$  chains exhibit low affinity IL-2 binding, and the  $\gamma$  chain alone does not bind IL-2. In addition to their involvement in IL-2 mediated signal transduction, both the  $\beta$  chain and  $\gamma$  chain have been shown to be required for IL-15 mediated signaling. IL-2 R $\beta$  is a member of the cytokine receptor superfamily. Human IL-2 R $\beta$  cDNA encodes a 551 amino acid (aa) precursor Type I membrane protein with a 26 aa signal peptide, a 214 aa extracellular region, a 25 aa transmembrane region and a 286 aa cytoplasmic domain. A soluble IL-2 R $\beta$  has been identified in the culture supernatants of a human lymphoid cell line, YT, that displays IL-2 R $\beta$ . Soluble IL-2 R $\beta$  binds IL-2 with low affinity and is not an effective IL-2 antagonist on cells displaying the high or intermediate affinity IL-2 signaling receptors. Nevertheless, soluble IL-2 R $\beta$  binds IL-15 with sufficient affinity to neutralize IL-15 biological activities.